

Section 4

Planned Data Collection and Analysis

Between January and June 2001, data will be collected from a variety of sources in the six States to analyze the impacts of WIC cost-containment practices on study objectives. The key data sources include:

- A **Survey of WIC Participants** will provide estimates of the percentage of WIC participants affected by cost-containment practices, through restricted item selection or vendor selection. The survey of 1,200 WIC participants across the six case study States will provide information on how cost-containment practices affect participants' use of and satisfaction with prescribed foods.
- A store **Survey of Food Prices and Item Availability** for WIC food items will be used to estimate the food cost savings from WIC cost-containment practices. The total number of stores included in the survey will be 162.
- **Interviews with State and local WIC officials** will provide information about the administrative costs of implementing and maintaining cost-containment practices. The State WIC director in each of the six States will be interviewed, as will the director of each of three local WIC offices in each State.
- **State WIC administrative data** will be used to examine the variation in voucher redemption rates across States, and to correlate food satisfaction measures expressed by survey respondents with their actual voucher redemption behavior. WIC administrative data also will be used to determine the extent to which incomplete voucher redemption affects health outcomes over the course of a WIC certification period.
- **Focus group discussions with WIC program dropouts** will be used to assess the relative importance of different cost-containment practices on the participants' decisions to drop out of the program. Six focus groups are planned, one in each of the six study States.
- **WIC transaction data from supermarkets**—in the form of scanned bar code data—will be used to examine the differences in WIC food purchases across States with different cost-containment practices.
- If available in time for the study, **EBT data on WIC purchases** from a demonstration in Ohio will be used to further examine which food items WIC participants actually buy and which prescribed items are not purchased.

A notice of the above planned data collection activities was published in the *Federal Register* on June 28, 2000 (pages 39854-39856). No comments were received during the 60-day comment period. The OMB is currently reviewing data collection instruments for clearance.

The assessment of WIC cost-containment practices involves several lines of analysis. Cost-containment practices are expected to lower WIC food costs. The concern, however, is that they may also lead to reduced participant satisfaction, lower voucher redemption rates, and reduced consumption of WIC foods. Additionally, it is obvious that any policy affecting consumption of the prescribed WIC food package may also compromise the health benefits derived from that food package.

To determine the effect of WIC cost-containment practices, the analyses will first rely on across-State comparisons between groups of States with and without specific cost-containment practices. For example, when examining the impact of item restrictions on satisfaction with and consumption of WIC-prescribed breakfast cereal, the study will consider differences between States with and without cereal restrictions. These analyses will reveal the average impact of cost-containment practices on WIC participants in selected cost-containment States. One of the dangers of across-State comparisons, however, is that the impact of cost-containment practices may be confounded with other differences between States, and the study may not be able to adequately control for these other differences (for example, regional differences in food preferences).

Instead of relying solely on across-State comparisons, the study will check the robustness of those results using within-State comparisons. Within-State comparisons are possible, even though cost-containment practices are implemented Statewide, because some WIC participants may not face binding restrictions. For example, in States with restrictions on breakfast cereal, some WIC participants will not face a binding constraint if their preferred cereal is not a “restricted” cereal. The cost-containment practice is binding only if it causes a WIC participant to select a food that would not be selected in the absence of the cost-containment practice. Thus, within-State analyses will indicate the impact of cost-containment practices on those facing a binding constraint; when appropriately weighted, these analyses yield a second measure of the average impact of cost-containment on WIC participants in cost-containment States.

The planned analyses, for each of the seven objectives specified in the legislation, are discussed below.

Program Participation

To estimate the potential increase in participation funded by cost-containment food cost savings, the study will combine results from the food cost savings analysis with participation data and food package issuance data obtained from State WIC agency information systems. This analysis will indicate how much of current participation is funded by cost-containment savings, or, alternatively, how many current participants could not be served if cost-containment practices were discontinued.

In addition to the increased participation funded by food cost savings, there is some concern that cost-containment practices decrease participation as some participants drop out of the program when they find that they are unable to purchase foods to their liking, or are unable to use WIC vouchers at convenient grocers. To shed light on this issue, the study will conduct focus groups with WIC dropouts in each State. Dropouts will be defined as participants who fail to pick up their WIC vouchers for two consecutive months.

Access and Availability of Prescribed Foods

Access to WIC foods requires participant access to WIC vendors who stock WIC-approved food items. The study will separately examine the impacts of cost-containment practices on access to vendors and item availability.

The impact of vendor restrictions on participant access to vendors will be assessed by examining differences between States in the numbers and locations of WIC vendors relative to the numbers and locations of WIC participants and FSP-approved supermarkets and grocery stores (thus taking into account the retailing environment). In addition, the Survey of WIC Participants will ask respondents whether or not the store where they shop for WIC foods is the same as the store where they do most of their grocery shopping. If the stores are not the same, respondents will be asked the distance and time it takes to reach each store. From these data, the study will estimate the impact of cost-containment practices on access to vendors.

The impact of cost-containment on item availability will be determined by directly measuring the availability of WIC-approved food items in a sample of WIC vendors, through the Survey of Food Prices and Item Availability. Additionally, the Survey of WIC Participants will ask respondents whether they ever failed to fully redeem their WIC vouchers, and why. The study will then compare the percentage of respondents failing to redeem vouchers fully because items were unavailable in States with cost-containment item restrictions, compared to States without cost-containment item restrictions.

Voucher Redemption Rates and Actual Food Selections by Participants

Voucher redemption occurs when a WIC participant redeems a WIC voucher for some or all of the items listed on that voucher. WIC participants typically receive multiple vouchers in a month, and the number can range from one to five. State WIC agencies will provide voucher issuance and reconciliation data, and from these data the study will estimate the differences in rates of voucher pickup and redemption between States, controlling for differences in the demographic characteristics of WIC participants between States. The study will examine the percentage of participants who pick up their vouchers for a specified month, the percentage who redeem any vouchers, and the percentage who redeem all vouchers for the month.

For participants in the survey sample, the analysis will match the administrative voucher redemption data to the survey data to compare voucher redemption behavior with the participants' expressed satisfaction with food item choices and access to vendors.

With regard to the impact of cost-containment practices on actual food selections, the issue of possible impacts on item availability was discussed above. The question then turns to whether food item restrictions change what WIC participants actually purchase with their WIC benefits. Actual food selections, within each of the main categories of WIC foods (milk, cheese, eggs, cereal, juice, peanut butter/beans), are made from among the items listed on a State's approved food list. If a State allows few choices, then the observed distribution of actual food selections made by participants within the State will be narrow. It does not necessarily follow, however, that in States with broad choice, the distribution of

actual food selections will fully reflect that broad choice. Actual food selections depend on preferences, so the impact of item restrictions on food selections depends on food preferences.

The Survey of WIC Participants will ask a series of questions about food items purchased with WIC benefits and whether there are other items, within each food group, that the participant would rather purchase with her benefits. If so, information about the preferred items will be collected and the analysis will determine whether the items are Federally approved for WIC. To the extent to which the preferred items are on the Federal list but are restricted by the participant's State WIC agency, this will measure the impact of item restrictions on food choice.

Additional information about the impacts of cost-containment practices on food selections will be gathered from scanner data collected from the major supermarket chains in each State. These scanner data will be analyzed to determine, for each food category, the distributions of actual food selections within each State. These distributions will be compared across States to see how frequently items restricted in one State are purchased in a State that does not impose a similar item restriction.

Participants on Special Diets or With Specific Food Allergies

Based on a physician's determination that a participant has a medical condition that precludes or restricts use of conventional foods, WIC agencies may prescribe food package III to women and infants with special dietary needs. In addition, when participants have certain food allergies, agencies may tailor standard food packages by substituting tolerated food items for those not tolerated by the participant. For instance, lactose intolerance or peanut allergies may be addressed by substitution of lactose-free or lactose-reduced milk for regular milk, and beans instead of peanut butter. Food item restrictions are not expected to affect the food items that these participants may purchase with their WIC benefits, although vendor restrictions could make it more difficult for some participants to find nearby WIC vendors that carry lactose-free or lactose-reduced milk.

All participants with food allergies or intolerance face the challenge of researching food product ingredients. For example, persons with soy or peanut allergies must read product labels to avoid unsafe or inappropriate nuts, oils, or related products in the breakfast cereals purchased with WIC benefits. The danger of item restriction cost-containment practices is that elimination of food products from a State's WIC food list imposes uncertainty of exposure to allergens or non-tolerated ingredients for participants who must choose previously untried products. The WIC program, however, attempts to alleviate these potential problems through nutrition education and counseling.

To address the possible adverse impacts of cost-containment practices on participants on special diets or with specific food allergies, the Survey of WIC Participants will ask all respondents a series of questions to determine whether or not the WIC participants in the family have special dietary needs. Respondents will be asked if they have health concerns associated with special diets (diabetes, high blood cholesterol, or asthma), food allergies or food intolerance, special diets maintained for religious reasons, or special diets to reduce fat, sodium, or sugar. Survey respondents who identify themselves as having special dietary needs will be asked whether their dietary needs pose problems when shopping for WIC foods.

In addition, when conducting analyses to estimate the impact of cost-containment on item availability, voucher redemption, food satisfaction, and food use, the study will include identifiers for participants

with special diets to determine if they have different experiences with respect to each of the outcome variables.

Participant Use of and Satisfaction with Prescribed Foods

Participants' use (i.e., consumption) of prescribed foods and their satisfaction with prescribed foods can only be ascertained by asking them. The Survey of WIC Participants includes questions about participants' satisfaction with prescribed foods in each of the main food categories: these questions ask about satisfaction with the brands of foods allowed as well as the allowed package sizes. The survey will also ask whether or not the WIC participants in the family actually consumed the WIC food items that were purchased during the month.

The estimated impacts of cost-containment item restrictions, within each food category, will be determined by comparing the survey responses of participants in States with and without cost-containment restrictions. This analysis will indicate the average impact on all participants in cost-containment States. The robustness of this result will be confirmed through the within-State analyses, comparing reported satisfaction and consumption of participants within a State, according to whether they report to be constrained by cost-containment practices.

Achievement of Positive Health Outcomes

The WIC program can promote positive health outcomes only if participants come to the WIC service site for nutrition education and health referrals, and only if they consume the foods in the prescribed WIC food package. As a result, cost-containment practices may affect health outcomes if they cause participants to drop out of the program, if they discourage eligible non-participants from applying, or if they reduce consumption of nutritious foods.

With the data collection planned for this study, there is no way to measure impacts among eligible non-participants. The participants invited to the focus groups for WIC dropouts, however, will be asked whether they have health insurance and whether they are continuing to receive medical care.

For active participants, if the study finds that cost-containment practices impact voucher redemption rates, food use, or food satisfaction, then the study will examine impacts on health outcomes. Health outcomes will be measured as the change in health status over the course of a WIC certification period, using nutrition and health status indicators (e.g., height and weight measures, blood iron measures, and nutrition risks) that are routinely collected by WIC clinic staff at certification and re-certification.

A potential difficulty in examining health outcomes is that changes in health status over a six-month period may be small. If changes in health status are small, then impacts within the survey sample may be difficult to detect, especially if the impact of cost-containment on food use or voucher redemption is of relatively small magnitude. The main hypothesis, however—that reduced voucher redemption and food use will be detrimental to health outcomes—can be examined using Statewide participant data on change in health status over the course of a certification period and voucher redemption behavior during the certification period. These results will reflect the impact on health outcomes resulting from all causes of failed voucher redemption. There is no reason, however, to believe that failure to redeem vouchers due to

cost-containment would have a different impact on health outcomes than failure to redeem vouchers for other cause.

Program Costs

The primary purpose of WIC cost-containment practices is to reduce the average cost of WIC food packages to free up additional funds to serve more participants. States, however, may incur additional administrative costs to implement and maintain cost-containment practices. In looking at the impacts of cost-containment practices on program costs, the study must therefore examine impacts on both food package and administrative costs.

The impact of cost-containment practices on average food package costs will be determined by examining the counterfactual: the cost of the food package in the absence of cost-containment restrictions. Prices of foods that are excluded from a State's approved food list are readily observable, and price data will be collected through the Survey of Food Prices and Item Availability. Using scanner data from supermarkets in States without cost-containment restrictions, the study will determine the degree to which restricted WIC food items would likely be purchased by WIC participants in the absence of the restrictions.¹⁷ This information will be coupled with item price information to estimate the savings in food package costs due to cost containment.

The impact of cost-containment practices on administrative costs will be determined through interviews with State WIC officials. Administrative costs are associated with implementing and maintaining cost-containment practices, and administrative cost savings may result from cost-containment practices. The interviews with State WIC agency officials will aim to enumerate all activities and procedures related to cost containment, and determine the costs associated with those activities.

¹⁷ There are six States in the study. For each food category (milk, cheese, cereal, etc.), scanner data will be aggregated across all States having no cost-containment item restriction for that food category.